REMARKS

Applicants express their sincere appreciation for the indication that claims 14-27 contain allowable subject matter. New claim 19 is claim 14 in independent form while new dependent claim 20 is merely claim 18 depended from claim 19 which is in turn depended from the subject matter of claim 14 (i.e. new claim 19).

Accordingly, there are no new issues in this amendment, claim 20 already having been allowed in paragraph 8 of the Office Action.

Single independent claim 1 and claims 2-13 and 18 depended therefrom, and new independent claim 19 and claims 15-17 and 20 depended therefrom, remain in this application for examination.

Drawings:

Applicant has added a new Fig. 9 showing knife edge 30 or 30' biting into the filter media 16 in order to illustrate more clearly the structure described on page 4, lines 19 and 20 of the specification, which structure recites "a slightly conical portion 32 of the shoulder which bites into the bottom surface 29 of the filter element." This proposed drawing correction avoids abandonment of this application.

Specification:

The claimed statement "the unitary filter media being sealed with the housing by direct engagement with the alloy comprising the housing" is supported in the specification by the following statement added to paragraph 4, line 5:

> "Accordingly, the filter media 16 is sealed with the housing by a direct engagement with the alloy comprising the housing."

Clearly, the drawings show the alloy of the housing abutting and therefore directly engaging the filter media.

Claim Objections:

As is evident from the amendments to claims 3, 16 and 18, Applicant has amended each of these claims to remove grounds for these rejections.

Claim Rejections – 35 U.S.C. §112:

Applicant has placed claim 14 in independent form as new independent claim 19 which does not have a recitation of terminology "penetrating a bottom surface of filter media." Rather, claim 19 has the following recitation:

> "an annular edge on the housing which engages a bottom surface of the filter media to provide a carbon-to-carbon/nickel chromium molybdenum alloy seal between the filter media and the housing."

Hence, Applicants' Attorneys respectfully submit that the term "penetrate" is another way of stating that annular edge "bites into" the bottom surface 29 of the filter element 16.

By the attached amendment to claims 16 and 17, these claims now directly depend from new independent claim 19. In addition, claims 15, 16 and 18 have been amended to remove the grounds of rejection thereof under 35 U.S.C. §112, second paragraph. Claim 14 is supported now in the drawing by virtue of the proposed new Fig. 9 which shows the knife edge 30 or 30' "biting into", i.e. penetrating the filter media 16.

Double Patenting Claim Rejections:

In paragraph 46, claim 1 has been rejected under 35 U.S.C. §103 as obvious in view of Wickland '304 and has been rejected under non-statutory double patenting based on claim 1 of Wickland '304 and Wickland '050. Applicant addresses this rejection in paragraphs 14 and 15.

Claim Rejections In General:

As is clear from Applicants specification and claims, Applicants' invention is directed to a housing made of HASTELLOY® C-22® alloy in combination with a carbon-to-carbon filter media. HASTELLOY® C-22 is alloy made of nickel, chromium and molybdenum. The references cited and applied by the Examiner, including the previously cited Felbaum et al. '669, teach utilizing HASTELLOY® C-22 for various purposes. The Examiner has withdrawn Felbaum et al. '669 as a reference against Applicants' claims and now relies solely on Kalota et al. 369. Other patents, Lula '971 and Carey II et al. '652 are cited as teaching that nickel molybdenum chromium alloys are utilized for corrosion resistance.

While Kalota et al. '369 discloses a housing made of HASTELLOY C-276, Kalota et al., does not disclose a housing in which there is unitary carbon-to-carbon filter media directly engaging HASTELLOY® alloy to form a seal. In Kalota et al. there is no disclosure of any filter media sealing with HASTELLOY® through direct engagement.

In Applicants' comparative examples, DVCON epoxy sealant used to a seal a carbon composite filter element failed in nitric acid, carbon tetrachloride and 1, 1, TCE, because the epoxy sealant reacted with these solvents after 24 hours. In comparative

example 2 a mechanical press fit seal became plugged when encountering HCl. In comparative example 3, it is demonstrated that carbon-to-carbon composite filter elements experienced no plugging when tested in the absence of stainless steel, whereas in the presence of stainless steel solvents caused plugging of the filter media. There is absolutely no recognition in Kalota et al. '369 that HASTELLOY® alloys will keep a filter element from clogging or will keep a filter element or similar element from failing. Even if HASTELLOY® is recognized as being corrosion resistant, there is absolutely no indication that a HASTELLOY® housing, in direct contact with a carbon-to-carbon filter media will resist corrosion for at least 200 years when the filter media has the particular characteristics set forth in claim 1, i.e.

> a hydrogen permeability greater than 10 E-06 mol/s/mol fraction weight, a removal of 0.45 micron particles exceeding 99% at an air flow capacity less than 200 ml/min and a pressure differential at less than 1 inch.

Moreover, there is absolutely no suggestion in Kalota et al. '369 that a HASTELLOY® housing could achieve these results. Accordingly, in order for there to be grounds for a *prima facie* obviousness rejection, the references combined with Kalota et al. '369 must make such a suggestion or provide such a motivation to one skilled in the art the time the invention was made. A review of the many references combined with Kalota et al. yields no such teaching, suggestion or motivation. The only teaching, suggestion or motivation for such a combination with Kalota et al. is Applicant's own disclosure, which is of course impermissible.

Referring first to Brassell et al. '328, cited in Applicant's specification, Brassell et al. '328 teaches away from the claimed invention in that paragraph 8, lines 24-30 teaches that

a sealant is used which is in contradistinction to Applicant's claimed invention because the claimed invention recites a direct engagement between the housing and filter media. There is no recognition of clogging or corrosion problems in Brassell '328, nor is there any specific disclosure of the material from which the housing is made. Accordingly, there is absolutely no teaching or suggestion in Brassell et al. '328 that a HASTELLOY® housing would solve the problem Applicants have solved. Clearly, there is no motivation to solve the problem in Brassell '328 because the problem is not recognized.

Claim Rejection Under 35 U.S.C. §103:

Claims 1, 2, 7, 18 and claims 3-7, 8 as well as claims 9 and 11 depend on a core rejection of Brassell '328 and Kalota which Applicants have established is not a sustainable rejection. Claims based on the rejection of paragraph 2 with the addition of teriary references do not cure the deficiencies of the primary and secondary reference combinations because they further limit claims 1, 2, 7 and 18 and are therefore patentable for the same reasons.

Claims 1, 2, 12, 13 and 18 are further rejected as unpatentable over Brassell et al. '669 in view of Brassell '328 and Kalota et al. Applicant also respectfully traverses this rejection. Brassell et al. '669 adds nothing whatsoever to the previously discussed Brassell '328/Kalota et al. '369 combination because it does not suggest or motivate one skilled in the art to solve the problem that Applicants have solved. There is no mention whatsoever in Brassell '669 of anything that would cause one to make a housing from HASTELLOY® because the problem of corroded and clogged filter media is simply not a consideration in Brassell '669. Again, the only motivation for this combination is Applicant's own disclosure,

and if that is the motivation for the combination of references, then the rejection is impermissible and should be withdrawn.

Claims 3-7, 8, 9, 10 and 11 all depend from claim 1 and therefore further limit claim 1. Accordingly, since none of the cursory references teach, suggest or motivate one to make a housing for a filter as described in the preamble of the claimed alloy material, these claims are patenable for the same reasons as claim 1.

In paragraph 14 and duplicate paragraph 15, the Examiner rejects Applicants' claims as unpatentable over Wickland et al '304 and in paragraph 5 rejects claim 1 in an inobviousness-type double patenting rejection as unpatentable over Wickland '304. Applicant respectfully traverses these rejections.

The Examiner's attention is directed to column 3, lines 49-54 of Wickland '304 which recites that the filter element 42 is sealed in the cavity 63 with an RTV silicon sealant. This is antithetical to Applicants' claimed invention wherein in Applicants' claimed invention sealing is by direct engagement with HASTELLOY® housing. Clearly, in order for such a rejection to be logical, one has to ignore limitations in Applicant's claims which recite that the housing is a HASTELLOY® housing and that the seal is by direct engagement of the HASTELLOY® housing with carbon-to-carbon filter element. There is no recitation in claim 1 of Wickland '304 of a nickel, chromium and molybdenum alloy housing, or of a seal created by direct engagement between the housing and a carbon-to-carbon filter media. It is respectfully requested that these conclusionary and unsupportable rejections of Applicants' claim 1 be withdrawn.

Finally, paragraph 6, line 1 has been rejected under ovbiousnesss-type double patenting as unpatentable over claim 1 of U. S. Patent 6,395,050. Applicant respectfully traverses this rejection and requests that this rejection be withdrawn.

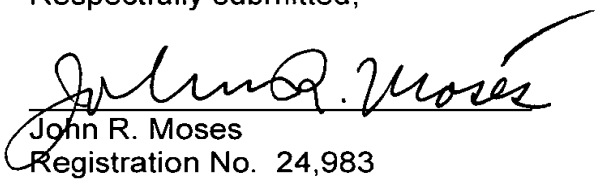
Again, there is absolutely no discussion, teaching or claim in Wickand '050 that housing should be made of HASTELLOY®. Moreover, in each example, the adhesive 42 and the adhesive 100 are used to retain a carbon-to-carbon filter media in its housing. This is absolutely antithetical to Applicant's claimed invention wherein the seal is a direct seal between a carbon-to-carbon filter media and a HASTELLOY® housing.

With respect to Examiner's conclusion in paragraph 19 on page 12 of the Office Action, it is respectfully submitted, that in this instance, Wickland et al. '050 and '304 teach away from Applicants' claimed invention, and at best are cumulative. Applicants have no obligation or duty, to cite or disclose every patent obtained by Applicants, especially when the particular patents cited are cumulative. Neither reference discloses a HASTELLOY® housing, or a seal in which a HASTELLOY® housing directly engages a filter media. These two references are clear evidence of patentability, not unpatentability.

In that this is a full and complete response to the Office Action of December 2, 2002, this application is now in condition for allowance. If the Examiner for any reason feels a personal conference with Applicants' attorneys might expedite prosecution of this application, the Examiner is respectfully requested to telephone the undersigned locally.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please **amend** the specification as follows:

On page 4, the first paragraph has been amended as follows:

Fig. 8 is a side elevation of the enclosure vent shown in Figs. 5 and 6 separated from the lid of the convenience can of Figs. 5 and 6~~.~~ , and

Fig. 9 is an enlarged view showing an edge on the housing biting into the filter media.

On page 4, paragraph 4 has been amended as follows:

Referring now to Figs. 2-4, the filter media 16 is retained within housing 18 which is shown in greater detail and has a first end 20 and a second end 22. The housing 18 is cylindrical about an axis 24 and defines a chamber 26 having a shoulder 28 therein. The filter ~~element~~ media 16 is disposed within the chamber 26 and abuts the shoulder 28. The shoulder 28 has a sharp annular edge 30 defined by a slightly conical portion 32 of the shoulder which bites into the bottom surface 29 of the filter element 16 (see Fig. 9) to engage and provide a knife edge seal 36 so that the first end 20 of the housing is sealed with respect to the filter ~~element~~ media 16. Consequently, all of the gasses, liquids and solid particles within the drum 10 which pass through the vent 14 must pass through the filter ~~element 16~~ media 16 because there is a carbon-to carbon/nickel, chromium, molybdenum alloy seal between the filter media 16 and housing 18. Accordingly, the filter media 16 is sealed with the housing by direct engagement with the alloy comprising the housing.

IN THE CLAIMS:

Please **amend** claims 3, 15, 16 and 18 as follows:

3. (Twice Amended) The enclosure vent of claim 2 wherein the axially extending portion of the housing includes an annular shoulder spaced ~~form~~ from the first and second openings thereof within the chamber for preventing axial movement of the filter media through the first opening of the housing and for sealing with the filter media and wherein the enclosure vent further includes a perforated lid having a plurality of openings, the perforated lid being attached to the housing for preventing axial movement of the filter media out of the second opening of the housing while allowing the passage of hydrogen gas therethrough.

15. (Amended) The enclosure vent of claim ~~14~~ 19 wherein the enclosure vent includes a perforated lid covering the filter media which is fixed over the chamber by direct contact with the housing.

16. (Amended) The enclosure vent of claim 15 wherein the direct contact is a ~~pres~~ press fit between the lid and housing.

18. (Amended) The enclosure vent of claim 1 wherein the enclosure vent is adapted for use with a stainless steel enclosure.